

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte REINHOLD SCHOPF

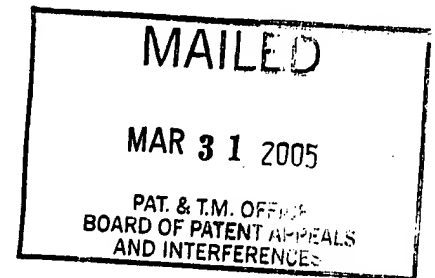
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Appeal No. 2005-0180  
Application No. 09/928,070

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ON BRIEF

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Before FRANKFORT, NASE, and BAHR, Administrative Patent Judges.  
FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's non-final rejection (in the Office action mailed May 15, 2003) of claims 8 through 10 and 13 through 15. Claims 11, 12, 16 and 17, the only other claims remaining in the application, have been withdrawn from further consideration. Claims 1 through 7 have been cancelled.

As noted on page 1 of the specification, appellant's invention relates to a stylus and, in particular, to a stylus for use in a coordinate-measuring machine wherein the

stylus has a stem with a break-off region. On page 5 of the specification, appellant refers to a known prior art coordinate-measuring machine (German Publication DE 33 14 318) having a stylus with a predetermined break-off region obtained by providing a noticeable reduction of the cross-section of the stylus stem. Such a break-off region is intended to protect the sensitive mechanics or the measuring system associated with the stylus in case of an uncontrolled collision of the stylus with the specimen or object being measured. Appellant's invention is said to represent an improvement over the existing stylus break-off region of reduced cross-section. More specifically, appellant provides a stylus with a break-off region (6) consisting of a changed structure of the stem material, wherein the changing of the structure of the stem material is effected by heating the respective stem region, e.g., with a laser beam, without any substantial removal of material so that the diameter of the stem does not change or would only change insignificantly. According to appellant, "[t]he finess [sic, fineness] of the obtained structure and the fact that no or almost no material is removed insure that the flexural characteristics of the stylus, and thereby, the measurement characteristics remain unchanged or are changed only insignificantly" (specification, pages 7-8).

Independent claims 1 and 13 are representative of the subject matter on appeal and a copy of those claims may be found in Appendix A of appellant's brief.

The prior art references relied upon by the examiner in rejecting the claims on appeal are:

Kendall	4,826,372	May 2, 1989
Possati et al. (Possati)	5,299,360	Apr. 5, 1994

Claims 8 through 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kendall.

Claims 13 through 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Possati in view of Kendall.

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejections and the conflicting viewpoints advanced by the examiner and appellant regarding those rejections, we make reference to the examiner's answer (mailed January 13, 2004) for the reasoning in support of the rejections, and to appellant's brief (filed October 31, 2003) and reply brief (filed March 5, 2004) for the arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we have made the determinations which follow.

With regard to the rejection of claims 8 through 10 under 35 U.S.C. § 102(b), the examiner has pointed to the blind fastener (10) of Kendall and urged that pin (14) therein constitutes a stylus having a stem and a break-off/breakneck region (24) provided in the stem and consisting of a changed structure of a stem material formed along the circumference of the stem and wherein the diameter of the stem (14) at the break-off point (24), is considered substantially unchanged because, in the examiner's view, the area removed from the break-off/breakneck region (24) is so small that it will not give a considerable change in the diameter of the stem.

After having carefully reviewed the Kendall patent, we find that we are in total agreement with appellant's position as set forth in the brief and reply brief that the stem or pin (14) of Kendall does not have a break-off region "consisting of a changed structure of a stem material wherein a diameter of the stem in the break-off region

remains substantially unchanged.” Like appellant, it is our view that the breakneck groove (24) in the pin (14) of Kendall would have been recognized by one of ordinary skill in the art as providing a noticeable reduction in the diameter of the pin and a change in the shape of the pin (14), without necessarily providing “a changed structure of a stem material,” as required in claim 8 on appeal.

As is made clear in appellant’s specification, the heating of a selected circumferential portion of the stylus stem, e.g., by a laser beam, to form a weakened break-off region (6), results in that region having a changed structure of the stem material, i.e., a change in the crystallographic structure of the stem material. No such “changed structure of a stem material” is taught, disclosed or otherwise suggested in Kendall. Moreover, appellant’s specification makes clear that the heating step mentioned above takes place with “no removal of material or a minimal removal of material” so that the diameter of the stem does not change or would change only insignificantly (specification, page 10). Thus, the language of claim 8 that the diameter of the stem in the break-off region “remains substantially unchanged” must be understood in the context of appellant’s disclosure as requiring no change or only insignificant change in the diameter. Contrary to the examiner’s view, the groove (24) of Kendall defining the breakneck region of pin (14) clearly represents a significant and noticeable change in the pin diameter.

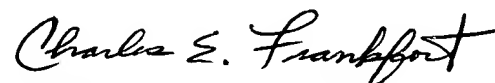
For the above reasons, we will not sustain the examiner's rejection of independent claim 8, or claims 9 and 10 which depends therefrom, under 35 U.S.C. § 102(b) as being anticipated by Kendall.

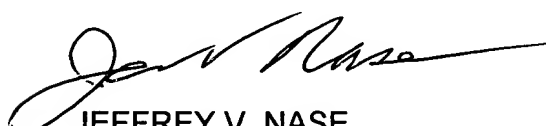
Concerning the examiner's rejection of claims 13 through 15 under 35 U.S.C. § 103(a) based on the combined teachings of Possati and Kendall, we find that even if the substitution of the break-off region (24) of Kendall for the sacrificial region (14) of Possati as urged by the examiner were to be undertaken, the result would not be a stylus like that defined in appellant's claims 13 through 15. As we noted in our commentary on the teachings of Kendall above, this patent does not teach or suggest a stylus stem "consisting of a changed structure of a stem material wherein a diameter of the stem in the break-off region remains substantially unchanged." Thus, since the teachings and suggestions found in Possati and Kendall would not have made the subject matter as a whole of claims 13 through 15 on appeal obvious to one of ordinary skill in the art at the time of appellant's invention, we must refuse to sustain the examiner's rejection of those claims under 35 U.S.C. § 103(a).

In summary, we have refused to sustain the examiner's rejection of claims 8 through 10 under 35 U.S.C. § 102(b) based on Kendall and the rejection of claims 13

through 15 under 35 U.S.C. § 103(a) based on Possati in view of Kendall. Thus, the decision of the examiner to reject the claims of the present application is reversed.

REVERSED

  
CHARLES E. FRANKFORT  
Administrative Patent Judge

  
JEFFREY V. NASE  
Administrative Patent Judge

  
JENNIFER D. BAHR  
Administrative Patent Judge

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